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# Vocational and Psychosocial Outcomes of Work Re-Integration Programs for Individuals with Severe Mental Illness: A Rapid Systematic Review

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## Key Words

- Severe mental illness
- Serious mental illness
- Vocational outcomes
- Non-vocational outcomes
- Psychosocial outcomes
- Work re-integration
- Occupational therapy

There are an estimated 11.2 million adults in the United States with a serious mental illness and this population is 6-7 times more likely to be unemployed. A systematic review of the literature related to work re-integration programs for individuals with severe mental illness was conducted to determine the role of occupational therapy in this area of practice. This included a comprehensive review of 25 studies that addressed many of the interventions commonly used in vocational and supported employment programs for individuals with severe mental illness and related mental health disorders. Findings reveal that various types of work re-integration programs result in competitive work attainment, increased job tenure, improved quality of life, and improved psychosocial factors. Occupational therapy could facilitate interventions related to work re-integration that improve vocational and non-vocational outcomes for this population. The literature over work re-integration programs is limited and more research is needed in order to understand the correlation between those with SMI and employment outcomes.

## Focused Clinical Question

What are the vocational and psychosocial outcomes of work integration programs for legally eligible workers (age 15+) diagnosed with a serious mental illness as compared to traditional treatment?

Among other occupations, participation in work is an area that occupational therapists address. Mental illness may decrease one's ability to engage in employment, resulting in

occupational deprivation. Identifying supports and barriers of work integration programs is pertinent to facilitating employment in this population. This article focuses on the currently available evidence related to improving work and psychosocial outcomes within the client's daily occupational context.

## Statement of Problem and Background

According to the National Institute of Mental Health, serious or severe mental illness (SMI) is defined as “a mental, behavioral, or emotional disorder resulting in serious functional impairment, which substantially interferes with or limits one or more major life activities” (National Institute of Mental Health, 2020). In 2017, there were an estimated 11.2 million adults in the United States with serious mental illness (National Institute of Mental Health, 2020). For adults with severe mental illness, adjusting to a recent diagnosis can be challenging.

While many areas of occupation are affected by mental illness, participation in activities with high cognitive demand (such as work or education) may be particularly difficult. Potential deficits in work-related performance skills (including attention, emotional regulation, and interpersonal awareness) make it difficult to obtain or maintain employment. In fact, adults with severe mental illness are 6-7 times more likely to be unemployed (Greenstein, 2017).

People between the ages of 18-25 years have the highest prevalence of SMI, which indicates that improving employment outcomes for this population is crucial (National Institute of Mental Health, 2020). Occupation-based interventions related to work integration, such as supported employment and skills training, are being explored to assist individuals with severe mental illness in their attempt to re-engage in valued work occupations.

In addition to individual challenges related to severe mental illness, a lack of employment among this population also has a societal impact.

## Method for Conducting the Evidence-Based Review

This Rapid Systematic Review was conducted to identify the effects of supported employment on work-related outcomes for individuals with a severe mental illness. Prior to the search, a collaboration was conducted with an occupational therapist who is an expert in the mental health field and with a medical

librarian. The occupational therapist recommended that the interventions include any work re-integration program, rather than only supported employment. This collaboration resulted in the identification of a pertinent PICO question and the development of an exhaustive search related to the population, which led to the following search terms:

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((vocational rehab*) OR (random*) AND (y_5[Filter])) AND (((((((((((((((Mental disorder* OR Psychiatric Illness* OR Mental Disorders, Severe OR Severe Mental Disorder*)) AND supported employment) AND Humans[Mesh])) AND ((Psychiatric Illness, Mental Disorders, Severe, Severe Mental Disorder[MeSH Terms]) AND Psychiatric Illness, Mental Disorders, Severe, Severe Mental Disorder AND Humans[Mesh])) AND supported employment) NOT (children OR infant* OR adolescent*)) AND Humans[Mesh])))) OR work reintegrat*) OR supported employment) AND (y_5[Filter]))
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Filters: Randomized Controlled Trial, Publication Dates: 2015- 2019

The above search terms were inputted into two databases (CINAHL and PUBMED). According to the AOTA grading system for levels of evidence, the targeted level of evidence was Level I and Level II studies but expansion occurred to include various levels of evidence, due to limited studies available. The inclusion and exclusion criteria were as follows:

### Inclusion criteria:

- Legally eligible to seek employment (ages 15 and older depending on the study)
- Reported at least one diagnosed psychiatric disorder
- Showed interest in employment or education
- Allowed studies conducted in the following countries: United States, Canada, Ireland, United Kingdom, Sweden, Netherlands, Australia, New Zealand, Norway, Denmark, Italy
- Sample size > 20
- Written in English

### Exclusion criteria:

- Reasons other than common mental disorders were the primary cause of problems with work participation
- Studies published before 2015

- Coexisting physical disabilities
- Pre-appraised evidence (systematic reviews, meta-analyses)
- Medication-only interventions

Studies were inputted into Covidence for further assessment. Starting with 165 articles, it was narrowed down to 47 articles. The articles were screened out when they were not from the allowed country or did not pertain to the PICO question. It was then narrowed down to 25 articles through a full article screening to get the best quality of evidence articles (see Appendix A). Throughout the elimination process, at least two members were required to vote in favor of the article in order for the study to be included in the next step of the review. Each of the 25 articles was thoroughly appraised by two team members before being included in the final selection of the Rapid Systematic Review.

## Results

The following results were obtained from the final 25 articles assessed through Covidence (see Figure 1).

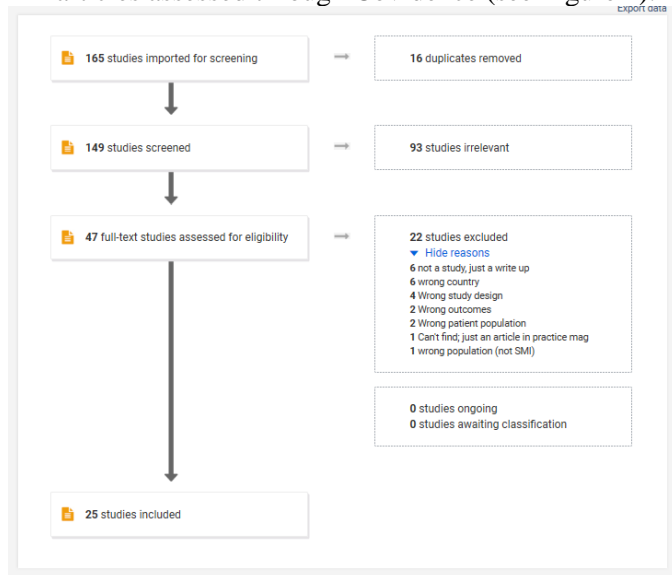


Figure 1: PRISMA diagram from Covidence

### *Individual Placement and Support (IPS):*

Individual Placement and Support showed improved vocational outcomes in three level I RCTs. IPS resulted in greater attainment in competitive employment ( $p < .01$ ) in a population of individuals diagnosed with a mental illness with a history of incarceration when compared to a Work Choice program that focused on resume building and available job openings (Bond et al., 2015). IPS showed a significant increase in attainment of steady work ( $p < 0.1$ ) and higher wages (CI 95%) in a population

of individuals diagnosed with PTSD when compared to a Transitional Work program (Davis et al., 2018). IPS also increased competitive work attainment (CI 95%) in a population of individuals with an opioid use disorder enrolled in methadone treatment when compared to treatment, as usual, methadone treatment alone (Lones et al., 2017).

An additional level I RCT showed IPS increased rate of employment after 6 months of intervention (71.2%) when compared to treatment as usual (48%) in a population of young individuals who had experienced their first episode of psychosis (Killackey et al., 2019). However the results are inconclusive due to no significant differences among the intervention groups in employment rate at the 12 and 18-month follow-ups. The significant findings at six months were not maintained long term.

Another Level I RCT compared work outcomes of IPS to IPS supplemented with The Workplace Fundamentals Module (WPFM) in a population of adults diagnosed with schizophrenia or schizoaffective disorder. The results revealed when supplementing IPS with the WPFM, no additional beneficial work outcomes surfaced (Glynn et al. 2017). WPFM in addition to IPS did not increase job tenure or affect other work outcomes.

The previous IPS studies looked primarily at vocational outcomes. In addition to vocational outcomes, other studies have considered the psychological impacts of employment interventions. One level I study conducted by Reme et. al. (2018) revealed that participants in the IPS program had a higher proportion (43%) of competitive employment outcomes compared to the control group (27%). The IPS participants in this study also revealed that it had significant improvement in psychological distress. On the contrary, a level I RCT conducted by Hellstrom et al. (2017) found that IPS-MA, a modified version of IPS for people with mood and anxiety disorders, did not improve psychological or work outcomes more than services as usual.

Due to the importance of considering psychological factors in the context of vocational outcomes, several studies have explored the effectiveness of interventions that are primarily based on cognition and mental health. One level I and two level II studies combined IPS with a cognitive or mental health component. Reme et. al. (2015) conducted an RCT and found that participants in the at work and coping (AWaC) intervention group, IPS and CBT combined, had a higher full or part-time employment outcome (44%) compared to the control

group (37%). The participants in the AWaC group also had significantly improved in their mental health status compared to the control group (Reme et. al. 2015).

Similarly, a level II study conducted by Teixeira et. al. (2018) examined the outcomes associated with traditional IPS in comparison to the Thinking Skills for Work (TSW) program, which included a computerized cognitive training program. Participants in the TSW program were more likely to have only successful jobs, less likely to have a generally unsuccessful job outcome, and were more likely to be employed at the completion of the study (Teixeira et. al., 2018).

A second level II study, Scanlan et. al. (2019), investigated the effectiveness of the WorkWell program, which is a combination of IPS and a collaborative recovery model. This model is based on employment strategies that have been shown to aid those with mental illness, such as strength identification, commitment to recovery, and monitoring of progress. Nearly half of all participants (49.5%) gained a competitive employment position and the average hourly wage was higher than the Australian national minimum wage (Scanlan et. al. 2019). Despite a need for further research, the aforementioned studies showed the potential benefits of integrating mental health, cognition, and vocational support.

#### *Individual Enabling and Support (IES):*

Two level I RCTs compared the IES intervention to traditional vocational rehabilitation (TVR) to find outcomes of mental health and employment. Bejerholm, Larsson & Johanson (2017) focused on the population diagnosed with affective disorder and found that the IES program increased competitive employment ( $p=.001$ ) and decreased depressive severity symptoms. While in the study conducted by Porter & Bejerholm (2018), it revealed that IES intervention did not improve employment but did improve depression and increased perceived empowerment compared to TVR at the 12-month mark. It was stated that a longer study needed to be conducted to reveal a correlation between employment and increased empowerment/decreased depression.

#### *NAVIGATE:*

Two level II studies conducted a cluster randomized trial comparing NAVIGATE combined with Supported Employment and Education (SEE) to usual community care. The study, conducted by Rosenheck et al. (2017), focused on populations diagnosed with first episode

psychosis and found that NAVIGATE combined with SEE was associated with greater improvement in work or school participation and showed a significant decrease in depression scores. The study conducted by Kane et al. (2016) focused on schizophrenia and related disorders and found that participants in the NAVIGATE group remained in treatment longer, experienced greater improvement in quality of life, and were more involved in work and school.

#### *Non-Vocational Outcomes:*

Two studies, one level I and one level II, focused on secondary outcomes of employment such as quality of life and overall empowerment. The level I RCT conducted by Russinova, Gidugu, Bloch, Restrepo-Toro, & Rogers (2018) revealed that participants assigned to the vocational empowerment photovoice (VEP) program scored higher on overall empowerment scale ( $p = .0004$ ), increased self efficacy and reduced self stigma. The level II cohort study conducted by Gold, Macias, & Rodican (2016) found that competitively employed Clubhouse participants reported greater global quality of life improvements compared to competitively employed Program of Assertive Community Treatment (PACT) participants.

#### *Additional Supports and Barriers:*

Furthermore, five additional studies supported the use of IPS in addition to the use of other tools and programs. Two level I studies, and one level III study, discussed the importance of verbal learning and communication skills to improve their interviewing skills. In a level I study conducted by Smith et al. (2015), researchers used a virtual training program that allowed the participants to practice interviewing skills in a real-life setting. Participants demonstrated greater odds of obtaining a job and reported more confidence and preparedness for future interviews. Similarly, a study conducted by Lexen and Bejerholm (2015) examined the correlation between communication and interaction skills in addition to IPS for those with SMI. It was found that an increase in ACIS-S score, an instrument to assess communication and interactional skills, led to improved hours worked per week, ability to interact with employers and colleagues, ask appropriate questions, share relevant information, and sustain social interaction. Likewise, a level I study, conducted by Landolt et al. (2016) focused on the ability to understand and retain language for increased work outcomes. It was found that participants that completed this program had success in obtaining at least 3 months of employment and that this program

should be used in conjunction with other supported employment programs to increase effectiveness.

To improve language and communication skills for work outcomes, two studies assessed the effectiveness and efficiency of cognitive programs for better employment outcomes for those with SMI. In a level I study conducted by McGurk et al. (2015) the use of the Thinking Skills for Work program was compared beside a cognitive enhanced supported employment program. The combination of these programs facilitated an increased chance of participants gaining competitive employment in terms of weeks worked and wages earned. Additionally, a level III study conducted by Kukla et al. (2019) used a Cognitive Behavioral Therapy for Work Success model program. Using the CBTw, 75% of unemployed participants at baseline were able to obtain employment and 73% of those participants attained steady work status, which suggests that this program should be used alongside other supported employment programs to increase vocational outcomes.

In addition to various supports and barriers explored through intervention, studies also examine how the characteristics of employers and individuals seeking employment contribute to vocational success.

In a level II study, conducted by Villotti et. al. (2017), authors investigated the relationship between accommodations offered by social businesses and various employment outcomes. This study found that supports related to schedule flexibility and job training were most beneficial for people with mental illness obtaining and maintaining employment, as evidenced by higher job tenure correlating with the presence of these characteristics. Participants also reported improved vocational outcomes as a result of acceptance from an employer when disclosing mental illness diagnoses.

Additionally, another Level II study conducted by Corbiere et al. (2017) investigated the predictive characteristics of individuals and employment specialists that resulted in competitive work attainment for individuals diagnosed with a mental disorder who were enrolled in a supported employment program. The results revealed that individuals who adopted a more active job search and had a shorter duration of unemployment had significantly better results in attaining competitive employment ( $p < 0.05$ ). Employment specialists who developed working alliances with employers also resulted in significantly increasing the outcome of their clients attaining competitive work.

### *Emerging Areas:*

While many of the previously discussed studies focus on mood, anxiety, or psychotic disorders, a level II study conducted by Tuten et. al. (2017) investigated the relationship between supportive housing, employment outcomes, and opioid abstinence. Compared to participants who accessed recovery housing, participants who did not have poorer outcomes for abstinence and employment. Employed participants were also more likely to be opioid abstinent at three-month and six-month follow-ups (Tuten et. al., 2017). These results suggest that employment served as a valuable occupation in participants' routines and that recovery-based housing may serve as a support to overcome substance use disorder and maintain favorable vocational outcomes.

Although Poremski et. al. (2016) is a level V study, the qualitative nature is informative as it relates to employment for those who simultaneously experience homelessness and SMI. Through coding, this study found that main barriers to finding employment once housed included "(1) apprehension about disclosing sensitive information and explaining absence from workforce; (2) wavering motivation; (3) continued substance use; and (4) being disturbed by fear, pain, and anxiety about re-experiencing homelessness-related trauma" (Poremski et. al., 2016). Based on the results of these studies, work re-integration programs may aid nontraditional populations (including people experiencing homelessness or a substance use disorder). Possible interventions include arranging supportive housing, advocating for open disclosure of mental illness to employers, and offering additional mental health management support.

## **Limitations**

Limitations of this review include a generally limited pool of evidence, resulting in difficulty determining effective interventions for those with severe mental illness. Non-response of participants during follow-up, attrition rate, small sample size, low level of evidence (per AOTA standards), lack of randomization of participants, lack of blinding, Hawthorne effect, geographical variability and limitations, self-reported measures and surveys, and variation of intervention implementation were limitations in both systematic reviews and individual studies.

## **Conclusions**

Though the results are inconclusive due to the limited evidence available and limitations within the individual studies, the preliminary findings provide promising potential that can be integrated into occupational therapy practice. For individuals with a desire to seek competitive employment, various work re-integration programs could be a suitable way for occupational therapists to improve clients' occupational outcomes, vocational goals, and social engagement.

Although the results were inconclusive, they did demonstrate the potential advantages of work re-integration. This includes the attainment of competitive employment, decreased depressive symptoms, increased quality of life, and increased perceived empowerment for this population. These results imply that occupational therapists can play a role in the re-engagement process for individuals with mental illness who are seeking employment.

Future studies should occur in order to verify the role that work re-integration has in addressing severe mental illness. Using larger sample sizes and randomization will improve the quality of available evidence. Despite the need for further research, using these principles is still beneficial for occupational therapists.

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## Appendix A.

Author/Year	Level of Evidence/Study Design/Participants/Inclusion Criteria	Intervention & Control Groups	Outcome Measures	Results
<p>Bejerholm, U., Larsson, M. E., &amp; Johanson, S. (2017). Supported employment adapted for people with affective disorders-A randomized controlled trial. <i>J Affect Disord</i>, 207, 212-220. doi:10.1016/j.jad.2016.08.028</p>	<p>Level I, RCT</p> <p>N=58 adults with an affective disorder (depression/bipolar disorders)</p> <p>Inclusion criteria: affective disorder, aged 18-63, spoke Swedish, expressed interest in employment, not employed within the past year, receiving mental health services, attended a research info meeting</p> <p>Women= 72%</p> <p>Men=28%</p> <p>Mean age= 41</p> <p>Intervention:IES (individual enabling and</p>	<p>Duration: 12 months</p> <p>IES: guided by an employment specialist; includes 4 phases; phases 1-3 required one hour per week; phase four required 20 minutes per week</p> <p>TVR: delivered by various professionals in several settings, less individualized, works on increasing work ability</p>	<p>Competitive work attainment: recorded in a vocational log on a weekly basis</p> <p>Depression severity: The Montgomery-Asberg Depression Self Rating Scale</p>	<p>At 12-month follow up 42.4% of IES participant were competitively employed compared to 4% of TVR participant (p=0.001) significant</p> <p>IES participant had significantly improved depression severity from moderate to mild depression.(p=0.001) No such change occurred within the TVR group</p>



	support) n= 33  Control:TVR (traditional vocational rehabilitation)= 25			
Bond, G. R., Kim, S. J., Becker, D. R., Swanson, S. J., Drake, R. E., Krzos, I. M., . . . Frounfelker, R. L. (2015). A Controlled Trial of Supported Employment for People With Severe Mental Illness and Justice Involvement. <i>Psychiatr Serv</i> , 66(10), 1027-1034. doi:10.1176/appi.ps.201400510	Level I, RCT  N= 85 participants with a mental illness who have a history of arrest or incarceration  Inclusion criteria: enrolled in a mental health treatment, no competitive employment in the past 3 months, no prior IPS job search, severe mental illness, 18 years or older, interest in competitive employment, self-disclosed criminal history, no other legal or physical restriction, informed consent  Mean age= 44  Intervention:IPS (individual placement and support) n=43	Duration: 12 months  IPS: led by employment specialists; job search based on participants preference; vocational assessment followed by rapid job search; 20 clients per employment specialist; specialist accompanies in job interview  Work Choice: led by a half-time recovery specialist and part-time peer support specialist; 40 clients per specialists; job pool developed by openings posted by employers; resume preparation; interview practice; self-directed job search	Employment outcome: Dartmouth Vocational Update Form  Self-reported recovery: 24 item subscale of the Recovery Assessment Scale	31% of IPS participants versus 7% of Work Choice participants obtained competitive employment (p<.01)  Self-reported recovery did not differ between IPS and Work Choice

	Control: Work Choice n= 44			
<p>Corbiere, M., Lecomte, T., Reinhartz, D., Kirsh, B., Goering, P., Menear, M., . . . Goldner, E. M. (2017). Predictors of Acquisition of Competitive Employment for People Enrolled in Supported Employment Programs. <i>J Nerv Ment Dis</i>, 205(4), 275-282. doi:10.1097/nmd.0000000000000612</p>	<p>Level II, Cohort N= 489 participants with a mental disorder who were enrolled in an SE program</p> <p>N= 97 employment specialists leading SE programs</p> <p>Inclusion criteria: more than 18 years of age, presented with a mental disorder, were looking for a job and were newly enrolled in a SE program Mean Age: 39 Male: 54.8% Female: 45.2%</p> <p>Intervention: all 489 participants received the same type of SE treatment to see what client factors predicted obtainment of employment</p> <p>Employment Specialists: mean age (41) (78% female; 22% male) mean</p>	<p>Duration 6 months</p> <p>Intervention: SE: provides individual placements in competitive employment, takes into account client's choices and capabilities, actively facilitates job acquisition and often sends staff to accompany clients on interviews, they provide ongoing support once the client is employed. All participants were in the same intervention group to serve as a control to see what client factors and what factors of the employment specialist predict competitive employment attainment</p>	<p>Client measures:</p> <p>1.job search strategies (dichotomous scale)</p> <p>2.duration of unemployment (Psychological Rehabilitation Toolkit)</p> <p>Employment Specialists measure</p> <p>1.therapeutic relationship with clients (Working Alliance Inventory questionnaire)</p>	<p>Client Results:</p> <p>1.Job search strategies: utilization of job search strategies contribute the most to competitive employment (active strategy OR 8.08)</p> <p>2. A shorter duration of unemployment played a role in employment attainment (OR 0.89)</p> <p>Employment Specialist:Developing a working alliance with employers and supervisors played a role in employment attainment (OR 1.19)</p> <p>All CI 95% all P values &lt;0.05</p>

	caseload (32 clients)			
<p>Davis, L. L., Kyriakides, T. C., Suris, A. M., Ottomanelli, L. A., Mueller, L., Parker, P. E., . . . Drake, R. E. (2018). Effect of Evidence-Based Supported Employment vs Transitional Work on Achieving Steady Work Among Veterans With Posttraumatic Stress Disorder: A Randomized Clinical Trial. <i>JAMA Psychiatry</i>, 75(4), 316-324. doi:10.1001/jama psychiatry.2017.4472</p>	<p>Level 1, RCT</p> <p>N= 541 participants with PTSD</p> <p>Mean age IPS: 42.5 Transitional Work:41.9</p> <p>Intervention: IPS n=271</p> <p>Control:transitional work n= 270</p> <p>Inclusion criteria: veterans with a lifetime diagnosis of PTSD according to DSM-IV, 65 years or younger, unemployed, interested in seeking competitive employment, likely to complete the study, and willing to be randomized</p>	<p>Duration: 18 months</p> <p>Intervention (IPS):job development that aligns with the participant's preferences, skills, and abilities, provided by IPS specialist, job coaching and advocacy, open-ended follow along supports</p> <p>Control (Transitional Work): stepwise vocational intervention in the VA, vocational assessment followed by a set-aside pre-employment, brokered, time-limited assignment in a noncompetitive minimum-wage activity, no application is required or competitive selection process, work assigned is temporary and has no provisions for advancement</p>	<p>Steady work Status: (analyzed using a logistic regression model); recorded in calendar diary and confirmed at weekly meetings</p> <p>Wages earned: (analyzed using a nonparametric test); recorded in calendar diary and confirmed at weekly meetings with pay stub or tax forms</p>	<p>Steady work Status: significantly more participants in the IPS group achieve steady worker status (OR 2.14; 95% CI; p,.001)</p> <p>Wages Earned: The IPS group had significantly higher earnings from competitive jobs that the transitional work group (CI 95%)</p>
<p>Glynn, S. M., Marder, S. R.,</p>	<p>Level I</p>	<p>IPS + WPFM: WPFM was provided during twice-</p>	<p>Assessed symptoms, health status, and</p>	<p>WPFM in addition to IPS was not statistically</p>

<p>Noordsy, D. L., O’Keefe, C., Becker, D. R., Drake, R. E., &amp; Sugar, C. A. (2017). An RCT evaluating the effects of skills training and medication type on work outcomes among patients with schizophrenia. <i>Psychiatric Services</i>, 68(3), 271-277.</p>	<p>RCT</p> <p><i>N</i> = 107 adults with a diagnosis of schizophrenia or schizoaffective disorder</p> <p>82% male, 18% female</p> <p>IPS +WPFM group, <i>n</i> = 51</p> <p>IPS only group, <i>n</i> = 56</p> <p>M age = 41 yrs.</p> <p><i>Inclusion Criteria</i></p> <p>Ages 18-65</p> <p>Living in the community</p> <p>Currently unemployed but interested in competitive work</p> <p>Diagnosis of schizophrenia or schizoaffective disorder</p> <p>Having not been hospitalized for the past month</p>	<p>weekly 90 minute small groups and used a format of seven sequential learning activities: skill introduction, videotaped demonstration, role-playing practice, resource problem solving, outcome problem solving, out-of-session practice, and problem-solving homework.</p> <p><i>IPS</i> only: Standard principles and procedures.</p> <p>Participants in both groups were randomly assigned to olanzapine and risperidone.</p>	<p>medication side effects at baseline and at every three months thereafter</p> <p>Work outcomes, including job title, hours worked, and wages were collected via weekly interviews.</p> <p>Social and role functioning was rated at the time of job acquisition and every six months thereafter using the QLS and they collected data on hospitalizations and number of WPFM classes attended.</p>	<p>proven to increase job tenure or affect other work outcomes.</p> <p>Olanzapine and risperidone were not statistically proven to affect work or clinical outcomes.</p>
<p>Gold, P. B., Macias, C., &amp; Rodican, C. F. (2016). Does competitive work improve quality</p>	<p>Level II</p> <p>Cohort</p> <p><i>N</i> = 167 adults with a clinician- diagnosed</p>	<p>Both groups provided supported employment services.</p> <p>Clubhouse group: A facility-based program.</p>	<p>QOLI administered to all participants in 6-month intervals.</p> <p>The 10-item Rosenberg Self-Esteem Scale was used at baseline and at the</p>	<p>Competitively employed Clubhouse participants reported greater global quality of life improvements compared to competitively</p>

<p>of life for adults with severe mental illness? Evidence from a randomized trial of supported employment. The journal of behavioral health services &amp; research, 43(2), 155-171.</p>	<p>severe mental illness</p> <p>66% male, 44% female</p> <p>Clubhouse group, n = 83</p> <p>PACT group, n = 84</p> <p>M age = 37 yrs.</p> <p><i>Inclusion Criteria</i></p> <p>Clinician-diagnosis of severe mental illness</p> <p>Age 18 or older</p> <p>No exposure to either experimental program in the preceding 2 years</p>	<p>Created a reliance on an employer consortium to reserve transitional entry-level employment positions for clubhouse participants and hired-job qualified participants directly into permanent positions as vacancies arose. Provided scheduled occasions to socialize.</p> <p>PACT group: Placed clients in jobs reserved for adults with mental illness. Did not provide scheduled occasions to socialize.</p>	<p>24-month interview. The SEQ was used to assess client satisfaction. Work activities, including hourly wage rate, total hours worked, and total earnings were reported weekly</p>	<p>employed PACT participants. There was no statistical significance between global quality of life and competitive work or work</p>
<p>Hellström, L., Bech, P., Hjorthøj, C., Nordentoft, M., Lindschou, J., &amp; Eplov, L. F. (2017). Effect on return to work or education of Individual Placement and Support modified for people with mood and anxiety</p>	<p>Level I</p> <p>RCT</p> <p>N = 326 adults with mood and anxiety disorders</p> <p>32% male, 68% female</p> <p>IPS-MA group, n = 162</p> <p>SAU group , n = 164</p> <p>M age = 35 yrs.</p>	<p>IPS-MA: Consisted of mentor support and career counselling, providing five basic services: individualized mentor support based on psychiatric knowledge (once a week for 1-1.5 hours), coordination of services provided, career counseling, impartial help to clarify private economy, and contact with employers to help participants obtain &amp; keep</p>	<p>Participants were interviewed using clinical-administered scales and patient-reported outcomes were scored at baseline and after 12 and 24 months after randomization. The primary outcome measure was competitive employment or education at 24 months and secondary outcome measures were weeks of employment or education,</p>	<p>IPS-MA, the modified version of IPS, was not superior to SAU in supporting people with mood or anxiety disorders in return to work or education at 24 months. There was no statistically significant difference found on any employment outcomes</p>

disorders: results of a randomised clinical trial. Occupational and environmental medicine, 74(10), 717-725.	<p><i>Inclusion Criteria</i></p> <p>Ages 18-60</p> <p>Diagnosis of affective disorder or anxiety</p> <p>No contact with mental health services for more than the past 3 years</p> <p>Employed or enrolled in education at some time during the past 3 years</p> <p>Motivated to return to work or education</p>	<p>jobs</p> <p>SAU: Participants all received SAU as offered by the job centres in Denmark.</p>	<p>level of symptoms and functioning, and self-reported quality of life.</p>	
<p>Kane, J. M., Robinson, D. G., Schooler, N. R., Mueser, K. T., Penn, D. L., Rosenheck, R. A., ... &amp; Marcy, P. (2016). Comprehensive versus usual community care for first-episode psychosis: 2-year outcomes from the NIMH RAISE early treatment program. American Journal of</p>	<p>Level 2</p> <p>Cluster Randomization Design</p> <p><i>N</i> = 404 participants with schizophrenia and related disorders</p> <p>73% male, 27% female</p> <p>NAVIGATE group , <i>n</i> = 223</p> <p>Community care group, <i>n</i> = 181</p> <p><i>M</i> age = 23 yrs.</p> <p><i>Inclusion Criteria</i></p>	<p>NAVIGATE: Included four core interventions: personalized medication management, family psychoeducation, resilience- focused individual therapy, and SEE services (5 hours/week). NAVIGATE sits received training in team-based first-episode psychosis and on expert consultation facilitated fidelity.</p> <p>Community Care: Psychosis treatment determined by clinician choice and service availability. Community</p>	<p>Trained interviewers using live, two-way video conferencing performed diagnostic interviews and assessments of symptoms and QOL. The primary outcome measure (the total QOL score) compared treatments at baseline, 6 months, 12 months, 18 months, and 24 months.</p>	<p>Participants in the NAVIGATE group remained in treatment longer, experienced greater improvement in QOL, and were more involved in work and school compared to the participants in the community care group.</p>

Psychiatry, 173(4), 362-372.	Ages 15-40 DSM-IV diagnoses of schizophrenia, schizoaffective disorder, schizophreniform disorder, brief psychotic disorder, or psychotic disorder Only one episode of psychosis Taken less than or equal to 6 months of lifetime antipsychotic medications English speaking	care sits received no additional training or supervision.		
Killackey, E., Allott, K., Jackson, H. J., Scutella, R., Tseng, Y. P., Borland, J., ... & Baksheev, G. (2019). Individual placement and support for vocational recovery in first-episode psychosis: randomised controlled trial. The British Journal of	Level I  RCT  <i>N</i> = 146 young people with FEP  79% male, 21% female  IPS group, <i>n</i> = 73  TAU group , <i>n</i> = 73  <i>M</i> age = 20 yrs.  <i>Inclusion Criteria</i> 15-25 years old Interest in vocational recovery	IPS: 6 months of IPS standard principles delivered by a vocational specialist.  TAU: Referral to external government-contracted employment agencies, some focused on disability employment and others on non-disabled populations of unemployed people.  Both groups received standard EPPIC treatment, including medical management and review, out-patient case management, access to	The primary outcome measure was employment over the first 6 months of the intervention with secondary employment outcomes between 6-12 and 12-18 months post-baseline. Other outcome measures included employment (measurement in hours), educational outcome (measured in enrollment in an educational course) and receipt or not of government benefits.	At the end of the 6 month IPS intervention, the IPS group had a significantly higher rate of having been employed than the TAU group. However, this significant difference was not seen at 12 and 18-month follow up indicating that IPS was not maintained in the long term.

Psychiatry, 214(2), 76-82.	Written informed consent	EPPIC group programme and peer and family support.		
Kukla, M., Salyers, M. P., Strasburger, A. M., Johnson- Kwochka, A., Amador, E., & Lysaker, P. H. (2019). Work- focused cognitive behavioral therapy to complement vocational services for people with mental illness: Pilot study outcomes across a 6- month posttreatment follow-up. <i>Psychiatric rehabilitation journal.</i>	Level II  Cohort  <i>Participants</i> N = 52 ( <i>M</i> age, 51.2 yr; 88.6% male, 11.4% female)  <i>Inclusion Criteria</i> Diagnosis of severe mental illness confirmed by medical record, current participation in vocational services, and a competitive employment goal.  <i>Intervention Setting</i> Urban VA medical center	<i>Intervention 1: Cognitive Behavioral Therapy for Work Success</i> (n = 52) 12 session manualized, group-based program. Emphasis on managing and maintaining work success and incorporates narrative components to enhance one sense of self.  <i>Control group</i> None	<i>Work Outcomes</i> Employment status Mean hours worked per week Mean wages earned hourly in competitive jobs  <i>Work Effectiveness and Productivity</i> Work and Health Interview Work productivity Likert scale <i>Psychiatric diagnosis and symptoms</i> Beck Depression Inventory (BDI-II) Positive and Negative Syndrome Scale (PANSS)	<i>Significant Findings</i> Mean wages significantly increased compared with the baseline period during the 6-month follow-up. The significant increases in average hours worked and wages earned suggest more consistent and higher quality of work over a period of time.
Landolt, K., Brantschen, E.,	Level I	<i>Intervention 1: 25 max hours of SE ( n = 21)</i>	<i>Assessments</i>	<i>Significant Findings</i> Verbal learning was



<p>Nordt, C., Bärtsch, B., Kawohl, W., &amp; Rössler, W. (2016). Association of supported employment with cognitive functioning and employment outcomes. <i>Psychiatric Services</i>, 67(11), 1257-1261.</p>	<p>RCT</p> <p><i>Participants</i> N = 116 (M age, 41 yr; 51 % female, 49% male)</p> <p><i>Inclusion Criteria</i> Current treatment in an outpatient psychiatric clinic, twelve months of unemployment and no program of vocational integration over the last three months, motivation to obtain competitive employment, working-age (18-60 years old), resident in the Canton of Zurich, willing and capable of giving informed consent.</p> <p><i>Intervention Setting</i> Outpatient clinic</p>	<p>Facilitated by six IPS job coaches from June 2010 - May 2011 and were interviewed every six months over three years by trained research psychologists.</p> <p><i>Intervention 2: 40 max hours of SE</i> (n = 23) Facilitated by six IPS job coaches from June 2010 - May 2011 and were interviewed every six months over three years by trained research psychologists.</p> <p><i>Intervention 3: 55 max hours of SE</i> (n = 23) Facilitated by six IPS job coaches from June 2010 - May 2011 and were interviewed every six months over three years by trained research psychologists.</p> <p><i>Control Group</i> (n = 49) No competitive employment.</p>	<p>Stroop Color-Word Interference test Verbal Learning and Memory Test (VLMT)</p>	<p>associated with finding a job of shorter duration (&lt; three months), whereas, memory was associated with a longer period of employment, or maintaining a job.</p> <p><i>Nonsignificant Findings</i> The maximal duration of SE limitations did not influence the positive association between cognitive functions and employment outcomes.</p>
<p>Lexén, A., &amp; Bejerholm, U.</p>	<p>Level III</p>	<p><i>Intervention 1: Communication and</i></p>	<p>Assessment of Communication and</p>	<p><i>Significant Findings</i> Significant correlations</p>

<p>(2016). Exploring communication and interaction skills at work among participants in individual placement and support. <i>Scandinavian journal of occupational therapy</i>, 23(4), 314-319.</p>	<p>Cross Sectional</p> <p><i>Participants</i> N= 29 (M age, 37.7 yr; 48% female, 52% male</p> <p><i>Inclusion Criteria</i> An SMI defined as a psychotic disorder or long-term psychiatric disability for longer than 2 years, ages 20 - retirement, regular contact with an IPS service., on-site support, disclosed the psychiatric illness at work, ability to communicate in the Swedish language, and being employed.</p> <p><i>Intervention Setting</i> Mental health care outpatient setting</p>	<p><i>interaction skills (n = 29)</i> Five structured observations were given over the course of one month.</p> <p><i>Control Group</i> None</p>	<p>Interaction Skills (ACIS-S)</p> <p>MOHO</p>	<p>were found between increased working hours per week and the participants' ability to interact with employers and other colleagues in terms of physicality, information exchange, and relations.</p> <p><i>Nonsignificant Findings</i> None</p>
<p>Lones, C. E., Bond, G. R., McGovern, M. P., Carr, K., Leckron-Myers, T., Hartnett, T., &amp; Becker, D. R. (2017).</p>	<p>Level 1, RCT Mean age Intervention: 34 Control: 40</p> <p>Intervention (IPS)= 22 Control (waitlist)=23</p>	<p>Duration: 12 months</p> <p>Intervention (IPS): intervention was conducted in the treatment site's clinic, provided by the same IPS specialist</p>	<p>Employment and income status: collected at each 3 month visit using the Dartmouth Employment and Income Review (updated employment status, salary, benefits</p>	<p>Participants in the active IPS group were 11 times more likely to have a job within the first 6 months of participation and by 12 months were 2.6 times more likely to have gained employment (CI</p>

<p>Individual Placement and Support (IPS) for Methadone Maintenance Therapy Patients: A Pilot Randomized Controlled Trial. <i>Adm Policy Ment Health</i>, 44(3), 359-364. doi:10.1007/s10488-017-0793-2</p>	<p>Inclusion criteria: 18 years or older, meet DSM-V criteria for moderate to severe opioid use disorder, receive methadone treatment for at least 14 days at the agency, never received supported employment, unemployed, have a desire to work, lack pending incarceration or housing which disallowed external work, and provide informed consent</p> <p>N= 45 participants receiving methadone maintenance therapy for an opioid use disorder</p>	<p>Control (waitlist): participants in the waitlist received methadone treatment as usually but were put on a 6 month waitlist before they began IPS</p>	<p>status, and efforts towards employment were recorded at every visit)</p>	<p>95%)</p>
<p>McGurk, S. R., Mueser, K. T., Xie, H., Welsh, J., Kaiser, S., Drake, R. E., ... &amp; McHugo, G. J. (2015). Cognitive enhancement treatment for people with mental illness who do not</p>	<p>Level I RCT</p> <p><i>Participants</i> N = 107 (M age, 44 yr; 70% male, 30% female)</p> <p><i>Inclusion Criteria</i> Met state definitions of having a severe mental illness with a DSM-IV axis I diagnosis and</p>	<p><i>Intervention 1: Thinking Skills for Work</i> (n = 57) Employment specialists were responsible for the treatment of this group however, bias was minimized by them having an instruction manual for this program. Treatment took place at the local mental health centers. 3 approaches</p>	<p><i>Cognitive Composite Cognitive Score</i></p> <p><i>Work Cumulative Employment Outcomes</i></p>	<p><i>Significant Findings</i> In the thinking skills group, 40 out of the 57 participants completed six or more computer cognitive training sessions. Participants within this group had significantly better performance than those in the control group. They also had better outcomes in terms of</p>

<p>respond to supported employment: a randomized controlled trial. <i>American Journal of Psychiatry</i>, 172(9), 852-861.</p>	<p>persistent impairment in various areas of functioning, failed to respond successfully to supported employment (in which they were enrolled for at least 3 months), indicated that they wanted to work, and were cleared from having traumatic brain injury or other medical conditions with a significant effect on the brain.</p> <p><i>Intervention setting</i> Outpatient setting</p>	<p>were taken: cognitive exercise practice, strategy coaching, and coping strategies. COGPACK computer program sessions were held once or twice weekly, using a 24-session standard. Assessments were given at 6, 12, 18, and 24 months.</p> <p><i>Control Group:</i> <i>Enhanced Supported Employment</i> (n = 50) Employment specialists were responsible for the treatment of this group. Treatment took place at the local mental health centers The program began with an assessment of the client's cognitive strengths and weaknesses. Then the employment specialist planned to focus on cognitive areas that posed challenges to successful competitive employment.</p>	<p>competitive work, all paid work, and weeks worked from 6 months until the end of the study at 24 months.</p> <p><i>Nonsignificant Findings</i> None</p>
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		Assessments were taken at 6, 12, 18, and 24 months.		
<p>Poremski, D., Woodhall-Melnik, J., Lemieux, A. J., &amp; Stergiopoulos, V. (2016). Persisting barriers to employment for recently housed adults with mental illness who were homeless. <i>Journal of Urban Health</i>, 93(1), 96-108.</p>	<p>Level V</p> <p>Qualitative semi-structured interview</p> <p>N = 27 participants, 56% male, 44% female</p> <p>From parent studies: of 90, 14 participants from experimental group and 13 from the control group</p> <p>M age = 48 yrs.</p> <p><i>Inclusion criteria:</i> 18 years of age or older; the presence of mental illness; current homelessness</p>	<p>No intervention and control groups because study was observational. All participants received supported housing services based on their participation in parent study. In parent study, intervention groups received services (such as job search assistance, resume assistance, mock interviews) from two employment specialists. The control group could choose traditional vocational services in community. In current study, semi-structured interviews (all one hour long) were used to collect data and coding was used to analyze themes.</p>	<p>Measures were primarily derived from coding following a semi-structured interview. Primary coding techniques were based upon frequency, intensity, and primacy to determine importance. While the interview content was subjective, coding made it more objective. All participants were analyzed with the same measures. through code frequency, intensity, and primacy. Focus included determining most common barriers to employment for homeless individuals with mental illness diagnosis and impact of IPS on overcoming barriers.</p>	<p>Overall found main barriers to finding employment once stably housed included (1) apprehension about disclosing sensitive information and explaining absence from work force; (2) wavering motivation; (3) continued substance use; and (4) being disturbed by fear, pain, and anxiety about re-experiencing homelessness-related trauma. Statistical significance is not reported due to the qualitative nature of study.</p>
<p>Porter, S., &amp; Bejerholm, U. (2018). The effect of</p>	<p>Level 1</p> <p>RCT</p>	<p>Intervention: IES included 3 phases. 1) enabling motivational cognitive and lifestyle</p>	<p>Outcome measures: Empowerment and depression were measured at 3 points, baseline, 6mo,</p>	<p>Results: An increase in perceived empowerment was seen for IES <math>p=.006</math>. IES</p>

<p>individual enabling and support on empowerment and depression severity in persons with affective disorders: outcome of a randomized control trial. <i>Nordic journal of psychiatry</i>, 72(4), 259-267.</p>	<p>N=61 adults with severe mental illness 17/61 %Male, 44/61%Female</p> <p>Intervention group, n = 33</p> <p>Control group, n = 28</p> <p>M age = 41yrs.</p> <p>Inclusion criteria: Depressive episode; recurrent depression or bipolar disorder; 18-63 years old; able to communicate swedish; expressed interest in employment; had not been employed within the last year; received MHS treatment and attended research information meetings.</p>	<p>strategies. 2) completion of a career profile and plan. 3) job seeking and supported employment. All phases are 1 hr/wk with an employment specialist who specializes in mental health services.</p> <p>Control: TVR included services from various professionals and is less individualized and delivered in several assessment stages 1 hr/wk. Step 1: reduce symptoms, 2:assessment of individual at 50% work capacity (10-20hr/wk), 3: prevocational activities, 4: vocational training through internship placements (20-40hr/wk)</p>	<p>12 mo.</p>	<p>participants showed a significant improvement in depression <math>p=.011</math>. Results showed that empowerment and depression did not influence gaining employment at 12 mo. Suggested there is more research to be done because previous research has shown IES to be beneficial in competitive employment gain.</p>
<p>Reme, S. E., Grasdahl, A. L., Løvrvik, C., Lie, S. A., &amp; Øverland, S. (2015). Work-focused cognitive–</p>	<p>Level I RCT</p> <p>N =1193 adults with severe mental illness 33% male, 67% female</p>	<p>Intervention: AWaC programme provides a systematic approach where individual CBT and job support are integrated. Mini teams of therapists and employment specialists ensure</p>	<p>Outcome measures: Used data from the national social insurance register and the national employee register to determine if a person was in regular work, combined work and recipient of</p>	<p>Results: AWaC 44% were full or part time at work compared to only 37% control group <math>p=.015</math> at 18 mo. The AWaC group had significant improved</p>

behavioural therapy and individual job support to increase work participation in common mental disorders: a randomised controlled multicentre trial. <i>Occup Environ Med</i> , 72(10), 745-752.	<p>Intervention group, n = 630</p> <p>Control group, n = 563</p> <p>M age= 40.4yrs.</p> <p><i>Inclusion criteria:</i> 18-60 years old; struggled with work participation attributable to common mental disorder; expressed a motivation to return to work or stay at work.</p>	<p>integration between CBT and the explicit work focus. There were 15 sessions of CBT and sessions of IPS.</p> <p>Control: The control group received standard treatment from their health professionals and were given a letter with information and encouragement to use available services and self-help resources.</p>	<p>benefits or out of work. Primary outcome was increased or maintained employment at 12 month post baseline. Secondary outcome measures were questionnaire based changes in psychological distress, anxiety and depression with use of the Hospital Anxiety and Depression Scale.</p>	<p>mental health status compared to control group <math>p=.026</math>. Work participation was higher in AWaC <math>p=.015</math>. It is not cost effective to do AWaC but it better improves mental health which can't be calculated</p>
Reme, S. E., Monstad, K., Fyhn, T., Sveinsdottir, V., Løvvik, C., Lie, S. A., & Øverland, S. N. (2018). A randomized controlled multicenter trial of individual placement and support for patients with moderate-to-severe mental	<p>Level I</p> <p>RCT</p> <p>N =410 adults with severe mental illness 51% male, 49% female</p> <p>Intervention group, n =229</p> <p>Control group, n = 181</p> <p>M age = 35yrs.</p> <p><i>Inclusion criteria:</i> At least one diagnosed psychiatric disorder;</p>	<p>Intervention: IPS included a structured and manualized approach to focus on competitive employment.</p> <p>Control: Treatment as usual which involved a prioritized vocational rehabilitation scheme, primarily work with assistance and or a traineeship in a sheltered business.</p>	<p>Outcome measures: Primary outcome measure at 12 mo follow up was competitive employment using data from NAV's State Register of Employers and Employees. In addition, self reported information was collected through questionnaires at 6 and 12 month follow up. Questionnaire measures included Hospital Anxiety and Depression Scale and the World health Organization Disability</p>	<p>Results: a significantly higher proportion in the IPS group (43%) had competitive employment compared to the control group (27%) <math>p=.013</math>. IPS reported significant improvements in psychological Distress <math>p =.012</math>.</p>

illness.	currently out of labor market; desire to work		Assessment Schedule.	
<p>Rosenheck, R., Mueser, K. T., Sint, K., Lin, H., Lynde, D. W., Glynn, S. M., ... &amp; Kane, J. M. (2017). Supported employment and education in comprehensive, integrated care for first episode psychosis: Effects on work, school, and disability income. <i>Schizophrenia Research</i>, 182, 120-128.</p>	<p>Level of evidence: Level 2</p> <p>Study Design: cluster randomized trial</p> <p>N = 404 adults with severe mental illness 72% male, 28% female</p> <p>Intervention group, n =223</p> <p>Control group, n = 181</p> <p>M age = N/A yrs.</p> <p><i>Inclusion criteria:</i> 15-40 years old; presented for treatment for FEP and had taken antipsychotic medication for less than 6 months</p>	<p>Intervention: NAVIGATE is a comprehensive team based treatment program that includes more than 5 hours of SEE services/ wk, and grounded in many principles of IPS combined with supported education services. Included components of personalized medication management, family psychoeducation and individual resilience focused training.</p> <p>Control: Usual community care (CC)</p>	<p>Outcome measures: Employment attendance, adherence to SEE. The positive and Negative Syndrome Scale (PANSS), the Quality of Life Scale, and participants' self-ratings of their overall mental health 0-100.</p>	<p>Results: NAVIGATE and SEE showed significant decrease in depression scores <math>p=.0012</math>. NAVIGATE treatment was associated with greater increase in participation in work <math>p=.0486</math>. There needs to be more research in this area with a higher participation rate to know if NAVIGATE with SEE sessions is worth it to improve interest in employment.</p>
<p>Russinova, Z., Gidugu, V., Bloch, P., Restrepo-Toro, M., &amp; Rogers, E. S. (2018). Empowering</p>	<p>Level I</p> <p>RCT</p> <p>N = 51 adults with severe mental illness 39% male, 61% female</p>	<p>Intervention: VEP program is a manualized peer led intervention with a 10-week core component delivered in 2 hr group sessions which is then followed by two booster</p>	<p>Outcome measures: Vocational identity scale measures a cluster of positive characteristics including desire, vocational attitude, commitment, and career</p>	<p>Results: The VEP program scored higher on the overall empowerment scale (<math>p=.0004</math>) and self efficacy (<math>p=.02</math>) and reduced self stigma</p>



<p>individuals with psychiatric disabilities to work: Results of a randomized trial. <i>Psychiatric rehabilitation journal</i>, 41(3), 196.</p>	<p>Intervention group, n = 24</p> <p>Control group, n = 27</p> <p>M age =46 yrs.</p> <p><i>Inclusion criteria:</i> 18 and older; have a diagnoses in the DSM; not working; were interested in receiving employment services; were interested in being employed; literate in English; able to give consent</p>	<p>sessions delivered a month apart after completion of the core curriculum. VEP integrates rehabilitation readiness technology specific to vocational identity and goals with photovoice methodology</p> <p>Control: Waitlist control group- no description</p>	<p>beliefs. Internalized stigma of mental illness scale. Extrinsic outcomes of engagement in employment services and being employed was measured using PROC GLIMMIX in SAS.</p>	<p>(p=.019).VEP program also had a significantly higher rate of engagement in employment services over the course of the intervention. There needs to be more research but the VEP program had significantly higher rates of engagement in employment services at the post-10 week. However, 3month later on control group also increased in engagement and few participants became employed over the course of the study to identify significant differences.</p>
<p>Scanlan, J. N., Feder, K., Ennals, P., &amp; Hancock, N. (2019). Outcomes of an individual placement and support</p>	<p>Level II</p> <p>Cohort</p> <p>N = 97 participants, 47.4% male, 52.6% female</p> <p>M age = 43 yrs. (SD = 10.5 yrs.)</p>	<p>No intervention and control groups because study was observational. Study investigates the use of the WorkWell program (based on collaborative recovery model) paired with IPS. Study analyzes outcomes from</p>	<p>Main measures included correlations between time from referral to commencement, time from commencement to first job placement, time from referral to first job placement and employment duration. In</p>	<p>Almost half of all participants (n = 48, 49.5%) gained a competitive employment position. Average employment duration was 151 days (21.6 weeks). The average hourly wage (mean =</p>

programme incorporating principles of the collaborative recovery model. <i>Australian occupational therapy journal</i> , 66(4), 519-529.	<i>Inclusion criteria:</i> Not formally specified; eligible participants were adults with severe mental illness referred to WorkWell	participants completing the program through an Australian organization (non-governmental). Main objective was to see if addition of CRM to IPS results in significant vocational outcomes, as well as how diagnosis may affect outcomes.	addition, general measures of number of participants obtaining competitive employment, pay, and employment duration were recorded.	\$29.15; median = \$25.00) was substantially higher than the national minimum wage (\$17.70) (Fair Work Commission, 2016). Positive aspects of WorkWell suspected to be integration of employment and mental health support and the integration of CRM principles. Employment duration had a statistically significant negative correlation with time from referral to commencement and time from referral to first job placement.
Smith, M. J., Fleming, M. F., Wright, M. A., Jordan, N., Humm, L. B., Olsen, D., & Bell, M. D. (2015). Job offers to individuals with severe mental illness after participation in	Level I  RCT  <i>Participants</i> N = 70 (M age 48; 62% male, 38% female)  <i>Inclusion Criteria</i> 18-56 years old; minimum of sixth-grade reading level according to Wide Range Achievement Test-	<i>Intervention 1: Virtual Reality Job Interview Training</i> Participants participated in intervention until they mastered the skills at three difficulty levels. Researchers then contacted participants weekly beginning six months after they completed the efficacy studies and completed a	<i>Cognitive:</i> Repeatable Battery for the Assessment of Neuropsychological Status (RBANS) Bell-Lysaker Emotion Recognition Tasks	<i>Significant Findings</i> A larger proportion of VR-JIT trainees received a job offer than those in the comparison group. (51% vs. 25%). Greater odds of receiving a job offer were associated with the amount of training, and performance scores were associated with how quickly trainees received

virtual reality job interview training. <i>Psychiatric Services</i> , 66(11), 1173-1179.	IV; willingness to be video recorded; were unemployed or underemployed; actively seeking employment  <i>Intervention Setting</i> Online based intervention, participants could take it anywhere	follow-up survey.  <i>Control Group</i> Participated in regular vocational services		a job offer.  <i>Nonsignificant Findings</i> Neurocognition, months since prior employment, PTSD diagnosis, and self-confidence were not significantly associated with the number of weeks searching for employment.
Teixeira, C., Mueser, K. T., Rogers, E. S., & McGurk, S. R. (2018). Job endings and work trajectories of persons receiving supported employment and cognitive remediation. <i>Psychiatric Services</i> , 69(7), 812-818.	Level II Cohort N = 107 adults with severe mental illness (only 52 who worked)  Only based on participants who worked: 58% male, 42% female  Intervention group (Thinking Skills for Work), n = 57 (only 34 who worked)  Control group (enhanced supported employment only, n = 50 (only 18 who worked)	One group was exposed to Thinking Skills for Work Program and a separate group exposed to only supported employment.. Supported employment was based on the individual placement and support model. Specialists for this group were taught about cognitive impairments that could impede work function to help participants cope. In Thinking Skills for Work Program, participants received 24 weekly one-hour sessions of individual computerized cognitive practice with Cogpack software over six	For all participants who worked, information about hours worked, wages earned, and benefits was collected during weekly tracking. Main measures used included reason for job-endings (split into four categories), successfulness of job (two categories) and work trajectories (four categories).	Significant results were that participants in the Thinking Skills for Work were more likely to have only successful jobs, were less likely to have an overall unsuccessful job trajectory and were more likely to be successfully employed at the end of the study. Other differences were found but were not statistically significant. Primary reason for job endings was discontinuation, followed by stress and pressure.

	<p>Only based on participants who worked: M age = 43.69 yrs. (SD = 10.45)</p> <p><i>Inclusion criteria:</i> DSM-IV psychiatric diagnosis was established with the Structured Clinical Interview for DSM-IV</p>	<p>months from a cognitive specialist. The population was specifically people for whom traditional supported employment was previously unsuccessful. In this study, work was tracked weekly.</p>		
<p>Tuten, M., Shadur, J. M., Stitzer, M., &amp; Jones, H. E. (2017). A comparison of reinforcement based treatment (RBT) versus RBT plus recovery housing (RBTRH). <i>Journal of substance abuse treatment</i>, 72, 48-55.</p>	<p>Level II Cohort</p> <p>N = 135 adults with severe mental illness 76% male, 24% female</p> <p>RBT, n = 55</p> <p>RBTRH, n = 80</p> <p>M age = 39.7 yrs. (SD = 8.5 yrs.)</p> <p><i>Inclusion criteria:</i> 18–60 years of age; Opioid dependent; No acute medical or psychiatric needs; Completed detoxification</p>	<p>No intervention and control groups because study was observational; however, study compares outcomes of reinforcement-based treatment and reinforcement-based treatment plus recovery housing for individuals with substance use disorder. The study also examines the impact of self-pay for housing.</p>	<p>Measures used include the Addiction Severity Index. Its outcomes were reported objectively. Urine samples were also taken. These were used to measure baselines and abstinence. Employment measures were also objective (mean days of employment, mean earnings, etc).</p>	<p>Participants who did not access recovery housing had overall poor outcomes for abstinence and employment. The RBT + housing group that included self-pay showed most favorable outcomes. The RBT and RBTRH groups did not differ on employment rates, mean days of employment, or amount of employment earnings at the one-, three-, or six-month assessments. There was a significant main effect of time on all employment measures from baseline to one-, three-, and six-month as-</p>

				<p>sessments, as well as for days worked and amount of employment earnings from one to three months assessment. Employed participants were also more likely to be opioid abstinent at three (OR = 3.315, <math>p = .008</math>) and six (OR = 3.286, <math>p = .019</math>) months compared to participants who were unemployed.</p>
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<p>Villotti, P., Corbière, M., Fossey, E., Fraccaroli, F., Lecomte, T., &amp; Harvey, C. (2017). Work accommodations and natural supports for employees with severe mental illness in social businesses: An international comparison. <i>Community mental health journal</i>, 53(7), 864-870.</p>	<p>Level II</p> <p>Case control</p> <p>N = 90 employees with self-reported psychiatric disabilities, 73.3% male in the Australian and Canadian subsamples; 70% male in the Italian one</p> <p>Australia: M = 43.79 years, SD = 9.52; Canada: M = 45.80 years, SD = 8.27; Italy: M = 44.17 years, SD = 5.08)</p> <p><i>Inclusion Criteria:</i> Employed in a social business operating a cleaning service; self-reported psychiatric disorder.</p>	<p>No intervention or control groups because study was observational. Three separate groups were analyzed (from 3 social businesses in Italy, Canada, and Australia). Participants in all groups completed the WANSS (Work Accommodation and Natural Support Scale), which has been validated in context to those with mental illness seeking employment. Questions were excluded if they did not pertain to social businesses. Outcome measures were then compared to the survey responses to identify common themes, as well as possible factors that led to desired outcomes.</p>	<p>Main outcome measures used included the results from the WANSS, job tenure, and hours worked per week.</p>	<p>Higher job tenure was found to correspond to high WANSS ratings related to schedule flexibility and training support on the WANSS. These results were statistically significant (<math>p &lt; 0.05</math>). Study showed that regardless of country, social businesses offered a wide range of accommodations and supports related to schedule and training.</p>
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**Note:**

RCT = Randomized Controlled Trial, TVR = Traditional Vocational Rehabilitation, AWaC = At Work and Coping, IPS = Individualized Placement and Support, SEE = Supported Employment and Education, VEP = Vocational Empowerment Photovoice, FEP = First Episode Psychosis, TAU = Treatment As Usual, EPPIC = Early Psychosis Prevention and Intervention Centre, IES= individual enabling and support, IPS-MA = Individual Placement and Support (IPS) modified for people with mood or

anxiety disorders, SAU = Services As Usual, PACT = Program of Assertive Community Treatment, QOLI = Quality of Life Interview, SEQ = Service Evaluation Questionnaire, WPFM = The Workplace Fundamentals Module, QLS = Quality of Life Scale, WANSS = Work Accommodation and Natural Support Scale, RBT = Reinforcement-based treatment, RBTH = Reinforcement-based treatment plus recovery housing